In the Abstract:

Cancel the current Abstract and substitute the following:

ABSTRACT OF THE DISCLOSURE.

A method and apparatus for determining the receptivity of radio signals at any given receiving site in an area covered by at least one transmitter by comparing data stored and continuously updated in a receiver against data transmitted and identifying and selecting from all the transmitted radio signals a preferred radio signal.

Remarks

The specification has been edited and amended where believed necessary to render it compliant with U.S. patent prosecution standards, by inserting certain sub-chapter headings, and to eliminate typographical errors and to improve its English idiom.

Two versions of substitute specifications are enclosed for the Examiner's convenience. The versions are substantively identical but differ in formal respects in that one shows amendatory markings whereas the other does not shows such markings.

Most of claims 30-61 have been amended. Claims 58 has been canceled, and new claims 62-64 have been added. The amended claims are also shown In the substitute specifications.

None of these changes have resulted in adding new matter to Applicants' original disclosure, and it is urged that as newly defined by the amended claims, Applicants' invention is patentably distinct from U.S. Patent 5,086,511 - Kobayashi et al.

Before presenting a discussion of their amended claims in light of the reference relied upon by the Examiner as the basis for rejecting original claims 30-61, claims 1-29 having been previously canceled, (there seems to be an error in that the Examiner is referring, under point 2 of the Office Action, to claims 1-38, 40-47, 49-60), Applicants deem it appropriate to offer a summary of their invention.

The salient point or core, as it were, of their invention is the reliance on two lists, i.e. list A and list B as indicated in Fig. 2 of the drawings.

List A referred to as the "at least one first list" in claim 30 contains different data blocks relating to different radio signals. Such data blocks are, for example, PS_1, PS_2, PS_{L1}. A unique program identifier is associated with every data block. As shown in Fig 2, such identifier may be a natural number. Thus, "1" is the natural number associated with data block PS_1. The natural number for data block PS_{L2} is shown to be 8. The Examiner is invited to refer to Applicants' substitute specification (without amendatory markings), page 11, line 8 where the "unique program identifier" is called "program identification signal". In the event, the program identifiers are "consecutive natural numbers" (page 10, lines 26/27). Data blocks associated with the program identifiers (see page 6, line 21 *seq.*) May include, in addition to or instead of the program variety indicator PS, an identification signal of a transmitter or an identification signal of program signals. Those elements mentioned at page 6, lines 21-23 may all be included in a data block as defined in claim 30.

The B-list ("at least one second list" in the claim) has no data blocks but only program identifiers associated with certain actual receiving sites.

Practicing the method in accordance with the invention leads to a receiver determining its actual receiving site. It then "looks" into the second (local) list to obtain program identifiers relating to the actual receiving site, that is to say the user retrieves the numbers 1, 2, 3, 4, 5, 6, 34, 35, ..., 73 for the actual receiving site D_1 (Fig. 2). The program identifiers are used to retrieve from the A-list the different data blocks associated with these program identifiers and a radio signal is provided on the basis of the retrieved data blocks.

What sets the instant invention patentably apart from prior art schemes is the first list (A) containing data blocks for radio signals which may *in principle* be received in the *entire* receiving area but which are not receivable at every receiving site in that area. The A-list thus may be likened to a location-independent directory of all radio signals receivable in principle, for instance every radio station in the United States, for instance. Any such station would be identified by its name or call-letters or program variety in a

data block pertaining to that station. This data block has associated with it a unique program identifier.

Since the first list is only a directory, as it were, of all available radio stations or "radio signals" and relevant information wherein each data block has its own program identifier, it does not and cannot by itself identify receivable programs.

This identification of receivable programs is made possible by the second or B-list which has a site identifier and one or more program identifiers associated therewith and which is used for accessing the first or A-list.

The advantage inherent in the instant invention is that a B-list for a given location requires only limited storage or memory and, hence, short processing time, in view of the fact that a list for a given site need store only an indication of the location and some identifiers for the radio signals which can actually be received at the site. Nonetheless, the B-lists can be easily managed and stored, their high redundancy notwithstanding. This is shown in Fig. 2 where program identifiers 1, 2, 3, 4, 5 occur in the D_1 list as well as in the D_2 list. The reason for this resides in the fact that any given receiving site there are (usually) several receivable radio signals. However, since the local lists contain only program identifiers but no data blocks, the storage volume required for the "second local lists" remains in a useful range and is not unduly large.

Yet the full data for each program identifier is included in the A-list albeit only once. Thus, program identifier "3", for example, occurs one time only, and the data block associated with it occurs but once as well. By contrast, in the second list the program identifier "3" occurs multiple times, but the data block requiring a larger memory or storage capacity is not included in the B-list.

Accordingly, providing two lists as defined in amended claim 30 yields the significant advantage of the storage for the highly redundant B-lists being of a reasonable, i.e. comparatively small size, whereas memory for the A-lists is more capacious which is, however, not significant in view of the fact that

there is no or at best very little redundancy in respect of the A-list.

Having regard to the '511 reference, it relates to a mobile receiver capable of "receiving different broadcasts of the same frequency f_1 from different broadcasting stations in areas A, B, C....X. This is made apparent in a table (see column 2, lines 57 *seq.*) depicting a plurality of area names and frequencies receivable in those areas. Column 2, lines 34 *seq.* makes it clear that "broadcasting station names associated therewith with respect to different areas" are part and parcel of the "frequency data of receivable broadcasting stations".

A comparison of the '511 list with Applicants' "at least one second local list" would *eo ipso* lead to the conclusion that the first local list includes the name of area "A" and the frequencies f_1, f_2, f_3, f_4. The first local list for area A would thus require eight (8) entries, i.e. four (4) entries for the receiving frequencies and four (4) entries for the names of the broadcasting stations. The number of entries would, of course, increase with an increase in the number of receivable frequencies. This pattern is repeated for every one of the other listed broadcasting stations.

Therefore, if the "program identifiers" of Applicants' claim 30, were likened to the frequencies f_1, f_2, f_3, f_4 for the first local list for area A, the '511 reference cannot be claimed to teach "at least one first list" containing different data blocks relating to different radio signals receivable in principle with each data block having a unique program identifier associated therewith.

All that can be said about the '511 reference is that it teaches the use of a single list with local listings; but it contains no teaching, overtly or implied, of using a "global" or "at least one first" list. The local lists of the '511 reference are rather voluminous in view of the fact that aside from the receivable frequencies they contain much additional data such as, for instance, the names and/or call letters of the radio stations.

Given that each frequency occurs many times in many areas, it is thus clear that the data is stored in an excessively redundant manner so that any storage capacity of the '511 system must, of necessity, be comparatively large, and access times for broadcast receivers must by comparatively long

since there is a radio station name associated with each frequency.

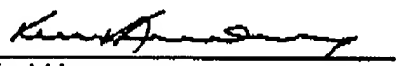
None of these disadvantageous exist in connection with Applicants' invention which teaches the use of local lists containing only the barest necessary program identifiers and a "global" list containing data associated with those program identifiers. The combination of these two lists result in an overall reduction of required memory space with an attendant reduction of access times.

There is nothing in the '511 reference which can reasonably be interpreted by a person skilled in the art to contain any suggestion, much less clear revelation, of an efficient combination of a first list containing redundant data and a second list sharing its minimum relevant data with the data of the first list to provide for an overall reduction of memory space and access times.

It is earnestly urged that as hereby amended the instant application is in condition for allowance which is courteously solicited.

- Please note that the assignee Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung hereby relinquishes its status as a small entity.

Respectfully submitted,



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